



**II Seminar on RVSM Implementation in
the CAR/SAM Regions
Panama, 16-17 June 2003**

**ACTIVITIES OF THE
GREPECAS RVSM TASK
FORCE**

ROBERTO ARCA

GREPECAS/10

Canary Islands, Spain, 23-27 October 2001

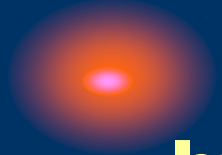


- **RVSM work Program**
- **RMA Implementation**
- **RMA Duties and responsibilities**
- **Encourage States to support UNDP/ICAO Project RLA/98/003 with a view on RVSM and RNP implementation**
- **RVSM Implementation in two phases starting April 2004**

AP/ATM/3 – May/2002

UNDP/ICAO Project RLA/98/003

- **Guidance to develop the National Plan for RVSM implementation and operation**
- **RVSM points of contact**
- **RVSM web page in SAM Office**
- **Airspace safety assessment by CARSAMMA**
- **ATC Simulations**
- **RVSM/TF Reorganization**
- **RVSM/TF studies harmonization with NAM Region**
- **Data collection program on navigation deviations**



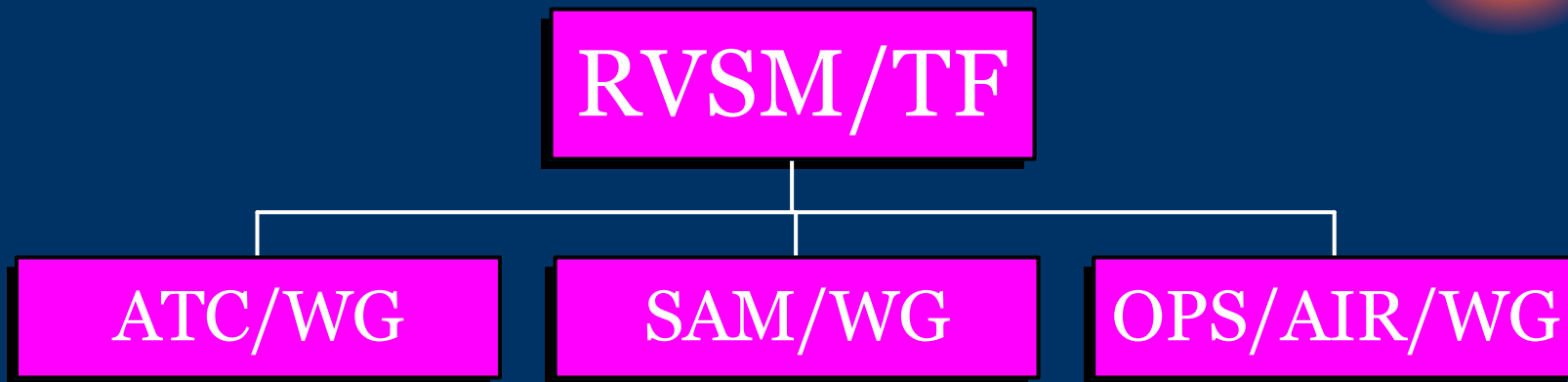
RVSM Task Force Terms of reference



- **Develop a benefit strategic implementation plan (based on cost-benefit studies) according to airspace users, for RVSM operations within the CAR/SAM airspace, ensuring an intra and inter-regional harmonization**
- **Assist in RVSM implementation in the CAR/SAM regions in accordance with the concept of operations developed by the States/Organizations in the RVSM TF**
- **Consider any amendment to the RVSM guidance material that could be proposed by the States and International Organizations**

Three Working Groups

RVSM/TF/2 Decision 2/2



Who?

- **ATC/WG**

- **MR. BRIAN THROOP**

- brian.throop@faa.gov**

- **OPS/AIR/WG**

- **MR. JAIRO SANDOVAL**

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- **SAM/WG**

- **MR. SAULO JOSÉ da SILVA**

- atm3-7@decea.gov.br**



RVSM Guidance Material



RVSM/TF/2 Decision 2/6

- **The RVSM/TF will develop the Guidance Material for the Implementation of the Vertical Separation Minima (VSM) of 300m (100ft) between FL 290 and FL 410 inclusive for application in the CAR/SAM airspace and will submit this document to ICAO for its approval**
- **Electronic version:**
<http://www.lima.icao.int>

Development of the Task List and the Concept of Operations



RVSM/TF/2 Decision 2/7

- **The RVSM Task Force will develop a Task List and will update it during each meeting**
- **The ATC/WG should develop the Concept of Operations (CONOPS) and provide the information to the SAM/WG**

Guidance Material for RVSM approval of Aircraft and Operators

RVSM/TF/2 Decision 2/8



- **FAA Interim Guidance
91- RVSM**
- **JAA Temporary
Guidance Leaflet No.6
1-Oct.1999**

Other Conclusions and Decisions

RVSM/TF/2



- **Conc.2/2 RVSM impact assessment in automated systems**
- **Conc.2/4 System's Performance Monitoring with GMUs**
- **Dec.2/11 IATA contracts the GMUs provider sea**
- **Conc.2/8 Total participation in RVSM/TF**

CONOPS

RVSM/TF/3 Decisión 3/1

- **The ATC/WG recommends that:**
 - **The airspace in the CAR/SAM regions from FL290 to FL 410 inclusive be approved for RVSM operations**
 - **Approved aircraft should have operational priority within RVSM airspace**
 - **Each State/Organization should have the ability to develop procedures for the accommodation of non-approved aircraft in their domestic airspace**



CONOPS

RVSM/TF/3 Decision 3/2



- **That the ATC/WG :**
 - **Prepare a table containing information, details and the available options to the States for non-approved aircraft accommodation**
 - **Determine RVSM transition areas as necessary after the evaluation of the States survey and recommend the appropriate procedures**

CONOPS

RVSM/TF/3 Decision 3/4



- **That the ATC/WG :**
 - **Study which procedures in Annex 2 - related to Flight Level Allocation System - should be reviewed to determine if any changes are necessary to be applied in the RVSM CAR/SAM scenario**

ATM/CNS/2 Meeting

Rio de Janeiro, Brazil 16-20 September 2002



- **Conc.2/13 That CARSAMMA, supported by Brazil, be confirmed as the Regional Monitoring Agency for the CAR/SAM Regions in order to continue to advance the safety and airspace monitoring work programme.**

ATM/CNS/2 Meeting



- **Conc.2/15 RVSM implementation in the States/Territories/International Organizations of the CAR/SAM Regions, in order to harmonize with adjacent regions, be carried out in a single phase from FL290 to FL410, inclusive**
- **CAR/SAM RVSM be implemented simultaneously with that of the NAM Region**
- **States/Territories/International Organizations that are unable to fully implement RVSM as per the CAR/SAM concept of operations (CONOPS) be accommodated, if feasible, so as to prevent delays in those parts of the region that are ready to implement RVSM**

GREPECAS/11

Manaus, Brazil, 3-7 December 2002



- **Approves the work and proposals of the ATM/CNS/SG/2 on RVSM, and:**
 - **Confirms Brazil as RMA responsible (CARSAMMA)**
 - **Decides RVSM implementation in one single phase from FL 290 to FL 410**
 - **Harmonizes the implementation date with the NAM Region**
 - **Requests to continue with CONOPS development and establishes the most appropriate procedures for RVSM implementation**

AP/ATM/4 Meeting

Santa Cruz, Bolivia 27-31 January 2003

- **Conc.4/16 Review of the Draft Guidance Manual for RVSM implementation in the CAR/SAM Regions**
- **Conc.4/17 List of commercial aircraft registered in the CAR/SAM Regions**
- **Conc. 4/18 The OPS/AIR/WG will develop a Spanish version for reference documentation for aircraft operation and airworthiness approval**
- **Conc. 4/19 Approves CONOPS version 1.2**
- **Conc.4/20 Adjustment of RVSM implementation date 20/January/2005**
- **Conc. 4/21 Advance AIC/NOTAM model**

AP/ATM/4 Meeting

Santa Cruz, Bolivia 27-31 January 2003



- **Convenience of lateral deviations application**
- **Survey**
 - **Accommodation of NON-RVSM ACFTs in domestic airspaces**
 - **Advance AIC publication**
 - **ATC Simulation**
- **Preliminary cost/benefit analysis presented by the FAA**
- **Updating of the Task List**
- **Identification of transition areas and procedures**

Transition Areas



- **Traffic density in adjacent airspace due to RVSM**
- **Operations procedures for non-approved aircraft**
- **Separation procedures between non-approved aircraft**
- **Separation procedures between non-approved and approved aircraft**
- **Determination of specific points for divergent routes and lateral separations that permit altitud change to 2000 feet VSM**
- **Simulation and coordination of responsables among all the interested ATCs**

CARSAMMA



- **Contact person:** **Luiz Carlos Rocha**
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Brazil

- **Electronic mail :** **carsamma@cgna.gov.br**

- **Web page CARSAMMA:**
 - **Spanish text:**
www.cgna.gov.br/carsam/español/index.htm
 - **English text:**
www.cgna.gov.br/carsam/english/index.htm

FAA RVSM Website



- **Address:**

<http://www.faa.gov/ats/ato/rvsm1.htm>

Links to the following web pages:

- **NAT RVSM**
 - **Asia/Pacific RVSM**
 - **WATRS RVSM**
 - **Europe RVSM**
 - **United States Domestic RVSM**
 - **Middle East RVSM**
 - **CAR/SAM REGIONS**
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THANK YOU FOR YOUR ATTENTION



Questions ????

